GEOGRAPHIC NEWS BULLETINS

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated under the Federal law as a non-commercial institution for the increase of geographic knowledge and its popular diffusion.)

General Headquarters, Washington, D. C.

Contents for Week of March 13, 1933. Vol. XII. No. 4.

1. The Pacific Is Young in History of Navigation.
2. Sweden Takes Stock of Its Forests.
3. Asbestos, a Mineral That Can Be Woven Like Cloth.
4. Spanish Morocco, Capstone of the African Continent.
5. China's Yangtze: Busiest River in the World.

© *Photograph by Gerda Soderlund*

"THIS IS SWEDEN," SAYS THE PEASANT OF DALARNA

Majestic birches, symbols of Sweden's beauty and wealth, frame the approach to the Leksand Parish Church in Dalarna (Dalecarlia), central Sweden. The church, which appears to be of ordinary size in the picture, seats more than 5,000 worshipers. It was built by Swedish soldiers, returning from captivity in Russia, about 1700 (See Bulletin No. 2).

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic News Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 9, 1922.

UMI

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

The Pacific Is Young in History of Navigation

MANEUVERS of the United States fleet off the California coast recently, the Philippine Independence problem, and the League of Nations inquiry into Japan's activities in Micronesia, direct attention to the Pacific—"youngest" of oceans as far as the Western world is concerned.

With fast steamers plowing the Pacific in every direction, and with flyers crossing it in record flights during recent years, it is hard to believe that Captain James Cook opened up the Pacific many years after the thirteen colonies had been settled. The Colonies were already engaged in their great struggle for independence when this Englishman nosed his way along the uncharted shores of what are now Oregon and Washington.

Area Greater Than All Continents Combined

A map of the Pacific in 1768, the year that Cook first set sail for the South Seas, showed very few of the numerous island groups we know, and much of what it did show was wrong.

If it seems strange that only a century and a half ago most of the islands that dot the Pacific were unheard of in Europe, consider that this great water body covers about one-third the surface of the globe; its area is greater than all the continents combined; its width at the Equator is nearly half the earth's circumference, and on one occasion Cook sailed for 117 days without sighting land.

Small wonder that the Spaniards in crossing it hugged the parallel of 13° north as they would have clung to a life line, thus insuring their touching the Ladrones on their 80-day voyage to the Philippines.

The Hawaiian Islands, Uncle Sam's strongest outpost of defense, were the last islands visited by Captain Cook on his third voyage, for there he met his death. The great explorer thought the exploration of the Hawaiian group one of his major achievements. His friends in England smiled indulgently at his enthusiasm about an archipelago so isolated.

Strategy, Not Commerce, Lends Value to Islands

If the Pacific were merely a great ocean devoid of islands, or with a few bits of land such as those in the North Atlantic, probably there would be no "Pacific problem." In other words, each island might be visualized as the dot under a vast, hazy question-mark. "The problem of the Pacific" is in large part the problem of its islands.

If modern fleets had to be operated 6,000 miles from home without fuel bases, or if cables had to span such distances under water without relay stations, offensive naval warfare and telegraphic communication over wires would be practically impossible. The great powers of the world woke up to this fact in earnest about a generation ago and began taking over island bases and stations in the Pacific that had previously seemed of little more significance than stages for exotic dances and cannibal feasts.

Before this, islands and the lands bordering the world's greatest ocean had been acquired chiefly with the idea of exploiting their products, and only the larger areas were considered important. With the realization of the valuable parts that naval bases and relay stations might play in the future, there developed a keen interest in even the tiniest rocks and coral rings.

U. S. Has Big "Stake" in Pacific

As landlords of the domains that bound the vast bowl of the Pacific now sit three great, vitally interested powers—the United States, Great Britain and Japan. In addition there are four nations hardly less interested—China, Soviet Russia, Holland and France. Among those countries whose interests are by no means negligible are Mexico, Chile and the other west coast Latin American States. Spain and Germany, once interested at least to the extent that France is now interested, have passed from the Pacific; but in passing each has accentuated the problems of the United States.

What may be called the "stakes" of the various countries whose lands hem in the Pacific vary greatly on a basis of their coast lines. Leaving minor twists of the coasts out of consideration in every case, the United States leads in miles of frontage on the Pacific with more than 4,000 miles, counting both the sweep of the Aleutian Islands and the part of Alaska above them. The Philippines add a direct frontage of about 1,000 miles more on the other side of the great ocean.

Asiatic Russia is second with approximately 3,500 miles from Bering Strait to Chosen

UMI

© *Photograph by G. Heurlin*

STOCKHOLM, THE VENICE OF THE NORTH, FROM THE LOFTY TOWER OF ITS TOWN HALL

In the left foreground are the city's magnificent swimming pools. The islet just beyond is occupied by an exclusive restaurant, and farther on, in the same line, is the House of Parliament, with the Royal Palace on the right. Beyond is the square tower of Storkyrkan, the city's oldest church, dating from 1260. Conspicuous at the right is the 295-foot open-work iron spire of the Riddarholm Church, modestly suggesting the soaring spire of the Rouen Cathedral, the loftiest in France. Surrounding this church are numerous government office buildings (See Bulletin No. 2).

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Sweden Takes Stock of Its Forests

AFTER eight years of work Sweden has completed an inventory of its richest natural resource—58 million acres of forest. Not every tree was counted, but more than 12 million stands of marketable size were marked or banded. Sweden's total supply of timber was estimated at 50 billion cubic feet.

With nearly 60 per cent of its total area in forests, no country (with the possible exception of Finland) has as high per capita forest wealth as has Sweden. This land of the white birch and pine possesses approximately 10 acres of timber for every inhabitant.

Matches, Paper, Masts, and Box Boards

From the depths of the forests of Sweden come the commodities that head the kingdom's exports. Wood pulp, planed and unplaned boards, paper, beams, matches, spars, mastwood, and box boards provide nearly half the nation's annual revenues from exports.

In the surging forces of the Indal and Angerman rivers and the indefatigable trek of the heavy logs toward the sea there is something symbolic of Sweden. The logs are emigrants en route to world markets, with no immigrant quota to bar their advance—a great migration, almost human. Is it because the forests are being depopulated, asks the Swedish woodsman, that one hears them sigh?

In the solitudes of the Norrland forests the Swedish frontiersman has swung his ax during the brief dusk that is high noon on the winter day. Hauling the logs to the ice-locked rivers, natural floating channels for the timber industry of the far north, he waits for the release that comes with the thaws of spring.

Under his hand the primeval forest has almost vanished, but the regrowth of spruce and fir and pine is straight and tall. For several decades the Swedish State, stepping in to check indiscriminate waste of virgin forest, has been a zealous guardian of this, its most important source of wealth.

Nearly a Half Million Depend on Forests

In the forest industry of Sweden, which is not confined to the northern districts but extends practically throughout the country, more than 100,000 people are regularly employed and some 400,000 others obtain some part of their living in allied occupations dependent upon the timber supply.

With a few outstanding exceptions, there are no striking extremes of wealth and poverty in Sweden. There are no slums in Jönkoping, for instance, though it is the home of the world-famous safety match, one of the most important manufactures of the country. Eskilstuna steel, an equally familiar trade-mark, has not produced a Swedish Pittsburgh of smoke.

The miners at Kiruna, north of the Arctic Circle, live in a model community of neat, modern houses; and Falun, center of the Bergslagen mining interests, suggests neither luxury nor squalor, although one corporation, generally said to be the oldest in the world, has held continuous possession since 1284 of the great mine, Stora Kopparberget, with its vast underground pit.

The ordinary day laborer puts something of the spirit of the craftsman into his work. During six months' stay in the country one never learns from any official the Swedish equivalent for the word efficiency. It belongs in the general pattern of Swedish life, and is taken for granted.

UMI

(Korea), counting the coast line of the sea of Okhotsk, comparable in size to our own Gulf of Mexico.

Across the southwestern corner of the Pacific, British territory stretches from Netherland India to New Zealand, a distance of about 3,500 miles, but with a break of over 1,000 between Australia and New Zealand. Canada adds approximately 500 miles to British Pacific coast lines.

The islands that constitute Japan stretch along Asia from near the tip of Kamchatka to the southern point of Taiwan (Formosa), and thus have a frontage on the Pacific of about 2,700 miles. The coast line of Japan is much greater, however, due to the western frontage on the Sea of Okhotsk, the Sea of Japan, and the Yellow and China Seas.

Philippines Screen Asiatic Lands

Screened by the Philippines and the British possessions in northern Borneo, the Dutch possessions have a direct frontage on the Pacific of only about 1,000 miles; but their total coast line, counting that on the Indian Ocean, is many times that figure. China's coast line, too, is screened by Japan. It amounts to about 2,000 miles. French Indo-China, behind the Philippines, has a coast line of about 1,000 miles on the China Sea.

On the eastern side of the Pacific, Mexico has a coast line of more than 2,000 miles, while that of Chile is more than 2,500 miles. The aggregate Pacific coast line of the remaining Latin American countries amounts to about 3,500 miles.

But it is the small scattered islands controlled by these bordering nations that constitute the crux of the "Pacific problem." Practically all the islands in the Pacific proper are under the control of Great Britain, France, the United States, and Japan. All of the French and most of the British holdings are situated south of the equator, leaving the United States and Japan in close competition above that line. Guam is practically surrounded by Japanese islands in Micronesia, formerly owned by Germany; and Japanese lands skirt the Philippines on three sides. The United States is not a large holder of Pacific islands, but it owns the group which is by far the most important strategically—Hawaii.

Note: See also "The Cape Horn Grain-Ship Race," *National Geographic Magazine*, January, 1933; "Greatest Voyage in the Annals of the Sea," December, 1932; "Rounding the Horn in a Windjammer," February, 1931; "Some Impressions of 150,000 Miles of Travel," May, 1930; "Our Conquest of the Pacific," October, 1928; "Columbus of the Pacific," January, 1927; "The Hawaiian Islands," February, 1924; "The Islands of the Pacific" and "Yap, and Other Pacific Islands under Japanese Mandate," December, 1921.

Bulletin No. 1, March 13, 1933.

© *National Geographic Society*

THE SQUARE-RIGGER CONQUERED THE PACIFIC

It was to such sturdy craft as this that explorers and traders alike turned when the Pacific was opened to Western trade. To-day the full-rigged ship has been supplanted on regularly traveled routes by the express steamer, but much of the grain trade from Australia and an occasional cargo from our Pacific coast ports is carried by windjammers.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Asbestos, Mineral That Can Be Woven Like Cloth

THE United States is the world's largest source of manufactured asbestos products, but it is one of the smallest producers of raw asbestos.

Asbestos, as the consumer sees it, often resembles a textile because it can be twisted into cord and woven into fabric, but it is a mineral, nevertheless, mined in much the same manner as coal and iron.

Ancients Made Lamp Wicks from It

Asbestos was used by the ancients. They discovered that it would not burn so they used it for lamp wicks. When it was discovered that the mineral could be made into "yarn" and woven, it acquired numerous uses.

To-day motorists use more asbestos than any other group of consumers. Asbestos-faced automobile clutches help to put motor cars into motion and asbestos brake linings stop them. If all the brake linings produced in the United States in a year were made into a continuous ribbon, it would span the country between New York and San Francisco about ten times.

Asbestos curtains are not new to theater-goers, who are thus protected from fires arising back-stage; asbestos suits and gloves are worn by fire fighters and workmen handling molten metal in American mills; and American homes have asbestos covers to protect highly-polished dining tables from hot dishes, covers for heating pipes and furnaces to prevent loss of heat, asbestos ironing board covers that insure against damage by hot flat irons, asbestos insulation on electric iron, percolator and toaster cords, and asbestos gas logs in fireplaces.

Asbestos also has many uses where it cannot be seen and might least be expected by the average layman. Mixed with cement and other materials, it is pressed into fireproof shingles. Paint is made fireproof by the addition of asbestos, and, if it is added to plaster, it not only acts as a fire-proofing agent but it also improves the acoustic or sound properties of auditoriums and churches.

Asbestos sheeting often is placed between floors and walls of buildings with a triple purpose—fireproofing, weatherproofing and soundproofing. In Europe experiments are being made with pipes for water and gas, molded from a mixture of asbestos and cement.

Canada Is World's Largest Source of Asbestos

Canada is the world's largest source of asbestos. Its annual production of more than 200,000 short tons is more than the production of all the rest of the world combined, although asbestos is mined in at least sixteen other countries. Most of the Canadian supply comes from the Province of Quebec, only about 50 miles north of the United States border.

Next to Canada, Southern Rhodesia, Union of South Africa, and the Island of Cyprus are the most important asbestos sources. The United States trails in fifth place. The largest deposits of high grade asbestos in the United States are in Arizona, but the mineral also has been mined with some success in California, Georgia, Maryland, North Carolina, South Carolina, Vermont and Washington.

American manufacturers of asbestos products imported in 1930 about 262,000 tons of raw asbestos, which was valued at more than $11,000,000. They took about four-fifths of Canada's production and the remainder came from Union of South Africa, Mozambique, Germany and Russia. Russia ranked next to Canada in production of asbestos until the revolution.

UMI

The ordinary comforts of life are within the reach of the majority. With a highly-developed telephone system, business and social matters are handled largely over the wire. At the hint of a delay, when a call is made, the Swedish operator answers, not "Just a minute," but "In the wink of an eye," and she means just that.

Note: Students preparing project assignments about Sweden will find supplementary reading and pictures in: "Sweden, Land of White Birch and White Coal," and "Granite City of the North (Stockholm)," *National Geographic Magazine*, October, 1928. See also "Navigating the *Norge* from Rome to the North Pole and Beyond," August, 1927.

Bulletin No. 2, March 13, 1933.

© *Photograph by Kadel and Herbert*

SWEDISH MATCHES IN AN EARLY STAGE

At this point on the Dal River, in northern Sweden, logs are counted and sorted before being transported to sawmills whence, as lumber in many forms, they go forth to all parts of the world. Three expert tally clerks estimated the number in this pile at 9,875,163. The dam (center) tapers to a small runway, and lines resembling breakwaters diverge from it. The checking counters stand at the runway, where the logs are sorted and directed to the several flumes leading to that section of the sawmill which is to handle them.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

Spanish Morocco, Capstone of the African Continent

A NEW highway between Tetuan and Melilla in Spanish Morocco calls attention to the many improvements scheduled by the Republican government of Spain in its modernization program for Spanish Morocco.

Hard-surface highway mileage is increasing annually, connecting important towns along the coast and even penetrating the interior which, not long ago, was the haunt of outlaw Riffian tribesmen.

From Camel Caravans to Scheduled Buses

Bus schedules are including towns which in recent years were served only by camel caravans. Railroads are under construction in the coastal zone of the colony and new lines are proposed. Good water for the inhabitants of many towns is impounded in new dams and larger facilities are in the making. Electric lamps glow on principal street corners of larger towns, and the secrets of gloomy recesses of smaller towns will be revealed by light beams.

Spanish Morocco is a bit of Spain if travelers judge by the architecture of many of its finer buildings, by the language of the inhabitants in the accessible towns, and by the Spanish blood coursing the veins of many thousands met in a tour of the colony.

But one also is reminded at almost every turn that the colony is in the land of the Moors. Narrow alleylike streets of the town throng with men in flowing white sheetlike garb; there are colorful oriental bazaars where keen-trading merchants lounge about a mere hole in a wall among their stock in trade, and at Mohammedan prayer time a large part of the population faces Mecca.

In a hundred yards along a bazaar aisle, a traveler can trade in from twenty to thirty different "shops" and emerge from the noisy crowds with articles ranging from homemade brassware to handsome rugs from the Near East, ivory elephants from Ceylon and bolts of printed cloth from Massachusetts and Manchester. Ceuta's reputation for fine brassware is historic and world-wide. In the Middle Ages Italians prized Ceuta brass pieces above their objects of silver.

Pedestal of "Pillars of Hercules"

Spanish Morocco is slightly larger than Vermont. As the northwest capstone of the Africa continent, it is the pedestal for the "Pillars of Hercules," at the Strait of Gibraltar. In early times the "Pillars" marked the world's western extremity for Mediterranean mariners who dared not sail beyond them.

The "pedestal," however, is not all rock, nor does it include such sandy wastes as are found in French Morocco, whose border abuts Spanish Morocco on the south and east. There are many square miles of tawny, rocky mountains in the colony, but there also are vast fertile areas where a traveler may see, in the same panorama, a farmer plowing the soil with a camel-drawn stick while his neighbor, perhaps trained at one of the government's new agricultural schools, is mounted on a modern farming machine bumping over the earth to the staccato sound of a gasoline motor. Campaigns against malaria, locusts, and other scourges in the colony are making the farms more habitable for increasing numbers of colonists from Spain.

At Ceuta, Tetuan, Melilla, and Larache, the first three Mediterranean ports, and the latter an Atlantic Ocean port, one may observe the colony's foreign trade. Almonds, oranges, potatoes, canary seed, oxhides, wool, sheepskins, millet, fish and

Some Shipped Back to Source

After raw asbestos passes through modern American plants, some of it is shipped back to its native habitat in the form of brake lining material, pipe covering, textile yarn, and packing, roofing and other manufactures.

In 1930 exports of asbestos products were valued at more than $4,000,000. Included among the exports were nearly 1,400 miles of brake lining and clutch facing and more than 8,000 tons of yarn, paper and millboard, and pipe covering.

Note: Additional brief references to asbestos will be found in the following: "Under the South African Union," *National Geographic Magazine*, April, 1931; "World's Greatest Overland Explorer," November, 1928; "Unspoiled Cyprus," July, 1928; "The Green Mountain State," March, 1927; "Canada from the Air," October, 1926; and "Marching Through Georgia Sixty Years After," September, 1926.

Bulletin No. 3, March 13, 1933.

NOTE TO TEACHERS

Back copies of several recent issues of the GEOGRAPHIC NEWS BULLETIN are exhausted. Hence requests from teachers who wish their files complete cannot always be filled. A lapse in your receipt of THE BULLETIN may be avoided by sending your renewal remittance of 25 cents promptly when you are notified that your subscription is expired. Because these Bulletins represent a substantial gift to schools from the National Geographic Society's educational fund, the expense of advertising or circulation promotion cannot be undertaken as would be the case with a commercial publication. The Society must rely upon supervisory officials and teachers to call them to the attention of their colleagues who might use them to advantage in their geography, social sciences, and literature classes.

© *National Geographic Society*

FLUFFY "WOOL" THAT HIDES IN SOLID ROCK

Asbestos outside a South African mine in Transvaal. The small boxes contain fine, silky asbestos in the various stages of crushed rock, while the railway truck is filled with the snowy finished product ready for export. The Chinese called asbestos "salamander's wool," and the ancient Greeks used it as lamp wicks. South Africa's asbestos is produced mainly in Southern Rhodesia and the Transvaal.

GEOGRAPHIC NEWS BULLETIN

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(Founded in 1888 for the Increase and Diffusion of Geographic Knowledge)

General Headquarters, Washington, D. C.

China's Yangtze: Busiest River in the World

AMERICAN business firms in Shanghai have appealed to Washington for more consulates in the interior of China, particularly along the Yangtze River.

Decline of American commerce in Manchuria (Manchoukuo) since the Japanese conquest has turned the eyes of American importers and exporters to the vast region of more than 700,000 square miles which extends into the heart of China along the Yangtze, and contains nearly a tenth of the population of the globe.

Resembles Several American Streams

The Yangtze, while neither the longest nor largest river in the world, is a Chinese combination of Mississippi, Colorado, Hudson and Potomac. Like the Mississippi it is the largest stream in the country; like the Colorado it flows through the deepest gorges; like the Hudson it has, in Shanghai, the New York of China; and like the Potomac it passes the capital, Nanking, a city of historic associations.

Compared with the other great rivers of the world the 3,000-mile length of the Yangtze is exceeded by the Mississippi-Missouri, the Amazon and the Nile. In volume it ranks third, after the Amazon and the Congo, but in one respect it leads all others: with its tributary rivers, lakes and canals it constitutes the inland water system most used by man as a carrier of commerce.

The Yangtze drains in all an area equal to one quarter that of the United States. In its basin live approximately 200,000,000 people. A broad, deep, natural waterway for ships serves a teeming, civilized population, living on fertile, cultivated soil in a temperate climate. These people produce and exchange goods with the outside world. Little wonder that the Yangtze is considered of strategic as well as economic importance!

The Yangtze is more to China than any river could be to the United States. In a land of few railroads and almost no improved highways the Yangtze provides the only reliable route to the rich interior of China. The Hwang, or Yellow River, China's second largest stream, is too temperamental to be of high economic value. Its sudden floods and shifting channels have earned for it the nickname "China's Sorrow," whereas the Yangtze is "China's Joy."

Ocean Steamers Go Far Inland

Yangtze floods, unlike that of the summer of 1931, are generally not destructive, and they cover the bottom lands with new, rich earth which more than compensates for flood damages.

Furthermore, on the broad bosom of the Yangtze, whose name means "Son of the Ocean," ocean steamers may ascend 640 miles to Hankow, second largest city of China. Here, in the midst of the central plains, is the distributing center, the New Orleans, of the Yangtze basin. Smaller steamers can push on to Chungking; junks to Suifu; and rowboats to Batang, in eastern Yunnan Province—a total distance of 1,500 miles from the Yellow Sea.

Some see in the Yangtze, which follows a general west to east direction, the logical boundary between the north and the south of China. Geographically, however, China is divided into three main sections, with the great Yangtze valley forming a middle state. The Yangtze basin is an entity, the people, flora and fauna being distinct from those to the north and to the south of it.

The Yangtze has several names among the Chinese, only the last few hundred miles being known as "Yangtze Kiang," Kiang being one of the Chinese words for River. Some Chinese call the stream Ta Kiang, or Great River.

Dwarfs the Grand Canyon of the Colorado

Rising in the mountains of Tibet, near the birthplaces of three other mighty Asiatic rivers—the Yellow, the Mekong, and the Salwin—the Yangtze carves a way through tall mountain ranges, forming some of the deepest river canyons in the world. In one place the Yangtze gorge is 13,000 feet deep, dwarfing the Grand Canyon of the Colorado, which drops less than half the distance.

Through the middle plains the Yangtze drains some of the richest and oldest farming lands in the world. Here are many shallow lakes, which absorb the spring thaws and act as feeding reservoirs in the dry season, and fields of tea, rice and wheat. Mineral deposits and ironworks around Hankow, which is really three cities in one, suggest a comparison between this section of the Yangtze and Pennsylvania's Monongahela south of Pittsburgh.

In the lower Yangtze delta the countrysides are only a few feet above sea level. The

UMI

iron ore move from these ports to many parts of the world, but most of it moves across the Strait and the Mediterranean to Spain. France, Great Britain, and the United States are the colony's next best customers.

Coal was discovered in the Moroccan hills a few years ago. Many other minerals are known to be awaiting the miner's pick. Iron ore now is the chief product.

Tetuan is the capital of the colony. Ceuta, however, which is "just across the way from Gibraltar," is probably the best known town. Three years ago it sprang into the spotlight as the first city in Africa to have transatlantic phone service, enabling clean-shaven American business men in their New York offices to talk with the tawny-skinned, bearded individuals in the Moroccan bazaars. Ceuta once was a popular market for ivory, gold and slaves brought by caravan from Central Africa.

Note: See also "Beyond the Grand Atlas (French Morocco)," *National Geographic Magazine*, March, 1932; "Across French and Spanish Morocco," March, 1925; "Adventurous Sons of Cadiz," August, 1924; and "Here and There in Northern Africa," January, 1914.

Bulletin No. 4, March 13, 1933.

© *Photograph by Angel Rubio*

A TENSE MOMENT IN THE ARENA OF CEUTA

Spain has carried many of its customs and traditions into Spanish Morocco in recent years, just as the Moors brought their civilization into Spain during the period of Moslem ascendancy in the Middle Ages. Ceuta is built on a narrow peninsula and headland which rises to a height of 636 feet opposite the Rock of Gibraltar.

delta has millions of inhabitants to whom land is so valuable that not a single square foot can be wasted. Numerous canals, natural and man-made, make this region a Holland of the East. The canals serve as safety valves in time of flood, and also carry nearly all the traffic of this part of China.

Thousands of Chinese, loath to waste even a foot of precious land on a dwelling, are born, live and die on houseboats, going ashore only to till their little farms or to market their produce.

A "Panama Canal Digging" Annually

Each year the mighty Yangtze empties into the Yellow Sea some 6,428,000,000 cubic feet of earth in the form of silt—slightly more than the amount excavated to build the Panama Canal! If straightened out on the map of the United States the Yangtze would measure from San Francisco to Cape Cod.

Throughout its lower, navigable stretches an unending pageant of steamers, barges, junks and sampans constantly passes. Rafts of logs, with miniature villages on top, drift down with the current. Often these floating homes are partly covered with earth, on which vegetables grow, and pigs and chickens wander at will. Women hang out washing and children play just as if they were on solid land.

Shanghai once was directly on the Yangtze, but the channel shifted and the city now lies 12 miles from the mouth of the great stream, on the tidal Whangpoo River.

Note: By consulting the following articles in the *National Geographic Magazine* in your school or public library, a fairly complete picture of the Yangtze basin, from source to mouth, may be obtained: "Cosmopolitan Shanghai, Key Seaport of China," September, 1932; "Konka Risumgongba, Holy Mountain of the Outlaws," July, 1931; "The Glories of the Minya Konka," October, 1930; "The World's Greatest Overland Explorer," November, 1928; "Life Afloat in China," June, 1927; "Farmers Since the Days of Noah," April, 1927; "Through the Great River Trenches of Asia," August, 1926; "The Land of the Yellow Lama," April, 1925; and "The Eden of the Flowery Republic," November, 1920.

Bulletin No. 5, March 13, 1933.

© *National Geographic Society*

A "HALF-MOON" BOAT WITH A TWISTED BOW AND STERN

Halfway up the Yangtze Gorges there enters a swift side stream, which is navigated by this remarkable type of boat. Because of the twist fore and aft, one side of the boat is somewhat concave, the other somewhat convex. When it comes down stream it proceeds in such a way that the concave side is toward the inner bank and the convex side the outer bank, thereby avoiding the danger of collision with the outer bank. Because the bends in the stream vary, it is sometimes necessary for a boat to swing around and negotiate the current stern first instead of bow foremost, in order always to present the concave side to the inner bank.

UMI